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REMARKS

Claims 2-5 and 24-41 remain pending. Claims 46-50 have been canceled herein.

Information Disclosure Statement

Applicant incorrectly listed U.S Patent 5,222,474 on form PTO-1449. Under a separate cover letter, applicant submits a new form PTO-1449 and a copy of U.S. Patent 5,522,474.

Terminal Disclaimer

A new terminal disclaimer disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent 5,318,080 is being submitted. The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. 50-1212 (JFK/23,318-40).

Claim Objections

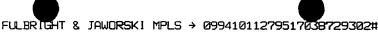
Claims 3, 40-41 and 46-50 were objected to because of informalities. Amendments to these claims have been made to remove any informalities.

Claim Rejections - 35 USC § 112

Claim 48 was rejected under 35 USC § 112, first paragraph. Claim 48 has been canceled.

Claims 46-50 were rejected under 35 USC § 112, second paragraph. Claims 46-50 has been canceled.

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Effective Filing Date of the Instant Application

It is submitted that the effective filing date for some of the pending claims of the instant application is October 23, 1991, based on U.S. Patent application 07/781,322 which matured into U.S. Patent 5,318,080. At least claims 2, 3, 4, 24 and 25 are supported by the disclosure of U.S. Patent application 07/781,322.

Claim Rejections - 35 USC § 102

Claims 3-5 were rejected under 35 USC 102(b) as being anticipated by Japanese Patent 2-72,299.

It is submitted that Japanese Patent 2-72,299 does not teach or suggest a fluid exchange system having a bypass feature according to the present invention, i.e., a bypass conduit which permits fluid from the vehicle to be recirculated back to the vehicle with minimal pressure increase. Bypass conduit 11 of 2-72,299 has a pressure responsive valve which provides selective communication only at high pressure conditions. The valve only opens when the inflow pressure reaches a higher than ordinary pressure, such as when valve 6 closes. Operating as a pressure relief device, flow through conduit 11 would occur only when the pressure is substantially greater than the ordinary operating pressure of the vehicle. In other words, when the valve is opened a significant pressure differential would exist across conduits of the exchange system. In comparison, the bypass conduit of the present invention is substantially unrestricted so that pressure within the bypass conduit is generally equivalent to pressure at the transmission ports. Importantly, the bypass conduit of the present invention does not substantially restrict the flow of fluid being recirculated back to the vehicle.

Claims 3-5 were rejected under 35 USC 102(e) as being anticipated by Chen 5.337,708.

It is submitted that claims 3 and 4 have an earlier effective filing date than Chen '708 and that therefore Chen '708 is not a prior art reference.

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Claims 46-47 and 49 were rejected under 35 USC 102(e) as being anticipated by Parker 5,370,160. Claims 46-47 and 49 have been canceled.

Claim Rejections – 35 USC § 103

Claims 2 and 24 were rejected under 35 USC 103(a) as being unpatentable over Japanese Patent 2-72,299 in view of Becnel '941.

It is submitted that Japanese Patent 2-72,299 and Becnel when combined fail to disclose, teach or suggest an apparatus according to the present invention.

The combination of Japanese Patent 2-72,299 and Becnel, even if proper, would fail to yield the apparatus of the present claims, e.g., a bypass conduit which is substantially unrestricted so that fluid is recirculated back to the vehicle without substantially pressure increase.

There is no teaching or suggestion to remove the pressure responsive valve in bypass conduit 11 and such a change would render the prior art invention unsatisfactory for its intended purpose, i.e. to permit a pressure relief valve. See, M.P.E.P §2143.01, citing In re Gordon, 733 F2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Furthermore, any proposed modification to the bypass conduit 11 of Japanese 2-72,299 would not be obvious as such a modification would change the principle of operation of the prior art invention being modified. See, M.P.E.P §2143.01, citing In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Claims 2, 24, 26 and 31-32 were rejected under 35 USC 103(a) as being unpatentable over Chen '708 in view of Becnel '941.

It is submitted that Chen '708 is not a proper prior art reference in view of the claim for priority to an earlier patent application. The combination of Chen '708 and Becnel, even if proper, would fail to yield the apparatus of the present claims.

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Claims 26 and 31-32 have been rejected under 35 USC 103(a) as being unpatentable over Japanese Patent 2-72,299 in view of Becnel '941 and further in view of Parker '160.

It is submitted that Parker '160 is not a proper prior art reference in view of the claim for priority to an earlier patent application. The combination of Japanese Patent 2-72,299, Becnel '941 and Parker '160, even if proper, would fail to yield the apparatus of the present claims.

Claim 33 was rejected under 35 USC 103(a) as being unpatentable over Japanese Patent 2-72,299 and Becnel '941 and Parker '160. Claim 26, from which claim 33 depends, is believed to be in a condition for allowance. As a result, this reconsideration of this rejection is requested.

Claim 33 was rejected under 35 USC 103(a) as being unpatentable over Chen '708 and Becnel '941 as applied to claim 32 above. Claim 26, from which claim 33 depends, is believed to be in a condition for allowance. As a result, this reconsideration of this rejection is requested.

Claims 40-41 were rejected under 35 USC 103(a) as being unpatentable over Chen '708 in view of Becnel '941.

Claims 40 and 41 have been amended to include the limitation of measuring an approximate fluid flow rate in the cooling circuit by measuring a fluid flow rate in the bypass conduit.

Claim 50 was rejected under 35 USC 103(a) as being unpatentable over Parker '160. Claim 50 has been canceled.

Respectfully submitted,
James P.Viken, by his attorneys

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CERTIFICATE OF FACSIMILE TRANSMISSION UNDER 37 C.F.R. 1.8:

I hereby certify that this paper and any papers referred to herein are being sent via facsimile to Commissioner for Patents telephone number 703-872-9302 on May 5, 2003.

John F. Klos: